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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,338	10/21/2003	Matthew James Mueller	043210-1467-00	2181
7590	11/19/2004			
Kevin P. Moran Michael Best & Friedrich LLP 100 East Wisconsin Avenue Milwaukee, WI 53202-4108			EXAMINER TRIEU, THAI BA	
			ART UNIT 3748	PAPER NUMBER

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/690,338	<b>Applicant(s)</b> MUELLER, MATTHEW JAMES	
	<b>Examiner</b> Thai-Ba Trieu	<b>Art Unit</b> 3748	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-20 and 22 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 21 is/are rejected.
- 7) ☒ Claim(s) 6-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This Office Action is in response to the Amendment filed on September 24, 2004. Claims 1 and 13-16 were amended; and claims 18-22 were added. Applicant's cooperation in correcting the informalities in the specification is appreciated.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claims 1-5 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Round et al. (Patent Number 5,720,251).***

Round discloses an internal combustion engine comprising:

a housing (Not Numbered) (See Figure 1);

an intake port (24) defined in the housing (See Figure 1);

an exhaust port (86, 22) defined in the housing (See Figures 1-2);

a generally cylindrical combustion chamber (Not Numbered) defined in the housing and communicating with the intake port (24) and the exhaust port (86);  
and

a combustion geroter (rotors 30,54) received by the combustion chamber and rotatable therein to receive a fuel mixture, compress the fuel mixture, combust the fuel mixture, and discharge the combusted fuel mixture to the

exhaust port (86, 22) (See Figures 1 and 9); the gerotor including an outer gear (54) and inner gear (30), the inner gear including a shaft (32) aperture (Not numbered) (See Figure 1) and otherwise being substantially solid (See Figure 1);

wherein the combustion gerotor includes an inner gear (30) and an outer gear (54) that rotate within the combustion chamber, wherein the inner gear rotates about a first axis, and the outer gear rotates about a second axis that is spaced from and substantially parallel to the first axis (See Figure 2);

wherein the inner and outer gears cooperate to define a plurality of ignition chambers (76) that receive the fuel mixture, and wherein the ignition chambers increase and decrease in volume as the inner and outer gears rotate (See Figure 2, Column 3, lines 20-28);

wherein the combustion chamber includes an aperture (90) defined in the gerotor housing and positioned to communicate with the ignition chambers (76) when the ignition chambers are at a maximum volume and when the ignition chambers are decreasing in volume, and wherein the fuel mixture flows through the aperture (90) and into the ignition chambers (76) (See Figure 2); and

wherein the exhaust port includes an aperture (80) that is positioned to communicate with the ignition chambers (76) when the ignition chambers are increasing in volume (See Figure 2).

***Allowable Subject Matter***

Claims **13-20 and 22** are allowed.

Claims **6-12** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: None of the cited prior art alone or in combination teaches the claimed combination of an internal combustion engine and a method for rotatably driving a drive shaft in an internal combustion engine having a first geroter working in the compression chamber , a second geroter working in the combustion chamber including:

**" Regarding claims 13, 18 and 22:**

directing the fuel mixture from the first geroter to a second geroter via an intermediate manifold, the intermediate manifold completely defined by stationary housing between the first geroter and the second geroter.

***Response to Arguments***

Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (703) 308-6450. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

However, the examiner's new telephone number (751) 272-4867 will become effective after the expected changeover date of November 22, 2004.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (703) 308-2623. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTB  
November 17, 2004

  
Thai-Ba Trieu  
Patent Examiner  
Art Unit 3748